Book Review.
Neuroimaging of the Auditory and Vestibular Systems: A Clinician's Guide. The First Edition.

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Book Details
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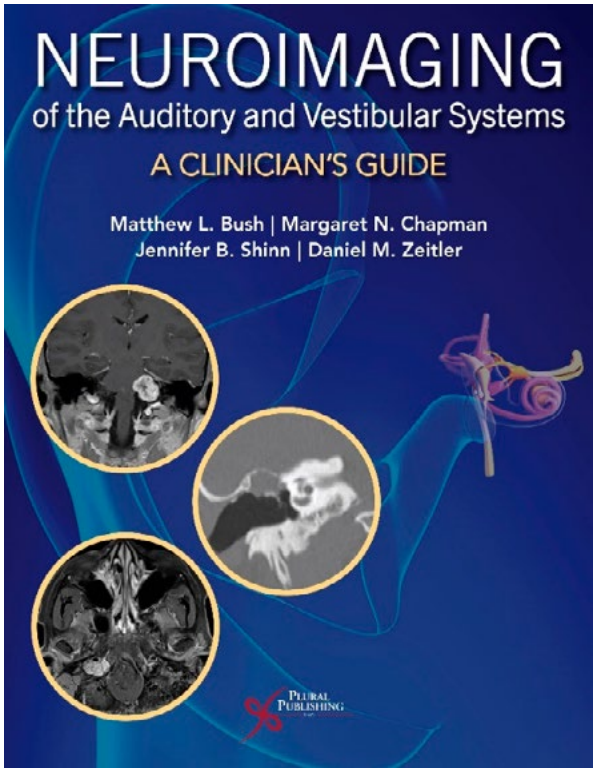
Today, thinking of facing a diagnosis in the audiological and vestibular field without the support of images is... unimaginable. The various methods of medical imaging are essential for many diagnostic issues in clinical *routine*, e.g., for the diagnostics and localization not only of tumorous diseases, but also for a better analysis of other alterations and pathologies in the central nervous system. In addition to this "classical" approach, in recent decades they have made a particular contribution to the "functional" study of processes in the human brain, both positron emission tomography (PET) and magnetic resonance imaging (MRI).

The last 25 years have seen great progress, especially with respect to functional MRI, in terms of the available experimental paradigms as well as the data analysis strategies, so that a directed investigation of neurophysiological correlates in audio-vestibular sciences (see i.e.: Roberts RE et al., Functional neuroimaging of visuo-vestibular interaction. Brain Struct Funct. 2017; 222:2329-2343; Kim SH, Park SH, Kim HJ, Kim JS. Isolated central vestibular syndrome. Ann N Y Acad Sci. 2015; 1343:80-9; Yeo SS, Oh S, Cho IH. A comparative study of vestibular projection connectivity and balance in healthy young adults and elderly subjects. BMC Neurol. 2024; 24:324; Jang SH et al., Structural neural connectivity of the vestibular nuclei in the human brain: a diffusion tensor imaging study. Neural Regen Res. 2018; 13:727-730; Uppenkamp S. Functional neuroimaging in hearing research and audiology. Z Med Phys. 2021; 31:289-304; Hausfeld L, Hamers IMH, Formisano E. FMRI speech tracking in primary and non-primary auditory cortex while listening to noisy scenes. Commun Biol. 2024; 7:1217)



This very recent **Neuroimaging of the Auditory and Vestibular Systems: A Clinician's Guide** is a modern introduction to the field and a comprehensive resource for audiologists, neurologists, radiologists, otolaryngologists, and neurotologists. This text equips clinicians with the knowledge of imaging modalities used to evaluate conditions affecting the auditory and vestibular systems, promoting efficient and effective patient care.

This book is written by a team of distinguished professionals; every chapter includes relevant and up-to-date material on the use of neuroimaging modalities to optimize auditory and vestibular health care and is widely applicable to diverse clinicians in the field. The emphasis on the importance of incorporating and interpreting neuroimaging in clinical practice can enhance collaborative communication and patient care.

This volume is not only pleasant to read, but its structure allows for easy consultation and in-depth analysis. Clinicians will be provided with information about the anatomy and physiology of the auditory and vestibular systems, as well as the fundamental concepts, indications, and utility of neuroimaging of this region to distinguish pathology from normal anatomy. This text also systematically describes common pathologic conditions found in the ear and lateral skull base beginning with the external ear and ending with the central nervous system. Particularly useful the integration of transdisciplinary perspectives into the text.

Key Features;

- Anatomy-based description of common pathologic conditions
- Comprehensive depiction of pathology through detailed complementary MRI and CT images
- Presentation of audiological findings that correlate with clinical scenarios
- Foreword written by Frank E. Musiek, PhD, CCC-A (Ret.)
- Transdisciplinary and multi-institutional contributions from experts in audiology, otolaryngology, neurotology, and radiology

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